Risk of aortic nodal metastases in cancer of the uterine cervix

Cervical cancer is one of the most preventable cancer since the introduction of Papanicolau test. However in nearly 30% of cases it is diagnosed in an advanced stage. Standard treatment for locally advanced cervical cancer (FIGO stage IB2-IIB) is concomitant chemo-radiation (no surgery). Nevertheless neoadjuvant chemotherapy (a pre-treatment with chemotherapy) followed by radical surgery (radical hysterectomy + lymphadenectomy) is an alternative used in several countries. Lymph-node status in cervical cancer patients is an independent risk factor for survival. The presence of nodal involvement worsen prognosis. A patient with nodal involvement has a risk of relapse/death that is 3 fold the risk of a patient without nodal metastases. The rate of aortic nodal involvement in stage IB2-IIB ranges from 10 % to 30%, so the evaluation of nodal status is of utmost importance to tailor treatment (i.e.: field of irradiation). However no consensus exist on the role of aortic surgical staging before chemo-radiation, as well as on the role of aortic lymphadenectomy during surgical treatment of locally advanced cervical cancer.

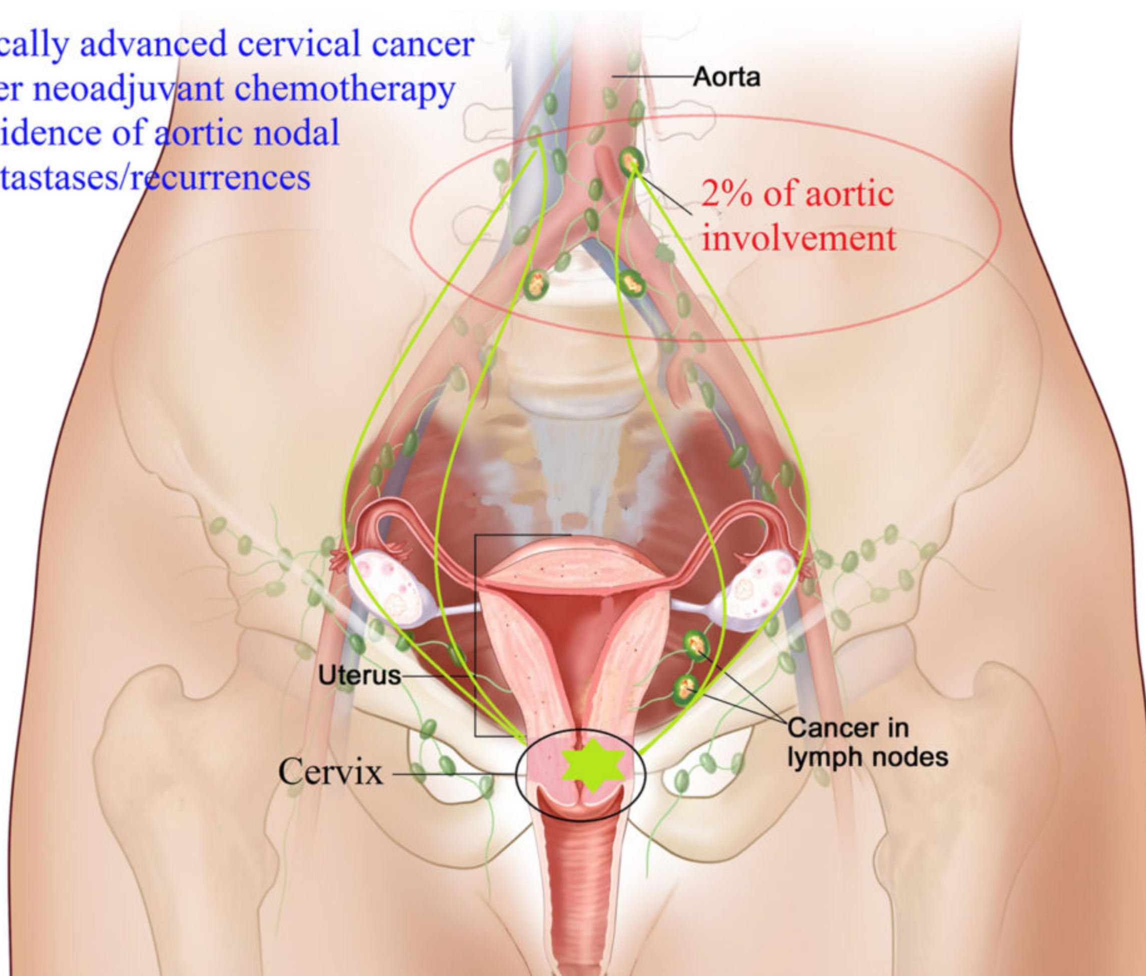

Fig. 1.

The aim of this study was to evaluate the rate of aortic nodal involvement/relapses in patients submitted to neoadjuvant chemotherapy followed by radical surgery.

Among the 261 women with locally advanced [FIGO stage: IB2: 100 (38.3%); IIA: 50 (19.2%); IIB: 111 (42.5%)] cervical cancer treated with neoadjuvant chemotherapy followed by radical surgery, 81% presented with a squamous carcinoma. In 56 women (21.5%) lymph node metastasis were found. Four out of 83 women (5%) who underwent both pelvic and aortic LN dissection had aortic LN metastases. Only one woman out of 178 (0.5%) who underwent pelvic lymphadenectomy only, had an aortic LN recurrence discovered during regular follow-up. Overall only in 5 out of 261 cases (2%) the aortic region was involved after neoadjuvant chemotherapy. All cases with aortic nodal involvement had also pelvic nodal metastases; meaning that aortic area could be involved only in case of pelvic area involvement (no skip metastases were found). Globally we found a lower rate (2%) of aortic nodal involvement in respect to published series without neoadjuvant chemotherapy (10-30%), the same was found for the pelvic area (22% vs 50%). These data, as well as data on survival benefits of adjuvant chemotherapy after treatment with exclusive chemo-radiation, suggest a role of chemotherapy in sterilizing aortic nodal metastases.

This study found that when neoadjuvant chemotherapy is administered, aortic lymphadenectomy should be reserved only in case of enlarged/suspicious nodes due to the low (2%) rate of aortic nodal involvement/ (0.5%) relapse.

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